

## SECTION

## C

# NEW JERSEY FIRE SERVICE STANDARDS AND REGULATIONS



## OUTLINE

- Public Employees Occupational Safety and Health Act (PEOSHA)
- Public Employees Occupational Safety and Health Program Bloodborne Pathogens Standard
- Emergency Lights
- Hazard Communication Standard



## OBJECTIVES

- Explain the difference between federal and state regulations concerning occupational safety and health of government employees.
- Describe the protective clothing that firefighters wear and its limitations.
- Explain what a pathogen is and how it can threaten the health of firefighters.
- Describe how a fire department's accountability system is used to track the whereabouts of all firefighters at an incident.
- Describe how a Personal Alert Safety System (PASS) works and the importance of using this type of unit.
- Explain the significant differences between the new Hazard Communication Standard and the Worker and Community Right-to-Know Act.
- Explain why there are so many regulations concerning firefighting and the operation of fire departments.



## PUBLIC EMPLOYEES OCCUPATIONAL SAFETY AND HEALTH ACT (PEOSHA)

In 1970, the Williams-Steiger Occupational Health and Safety Act was passed by Congress. It required the adoption of occupational safety and health standards for employees. This act, known by its acronym OSHA, has been applied nationwide to all private employers and employees. State and local public employees were not covered by this Act.

In 1984, the New Jersey State Legislature enacted the Public Employees Occupational Safety and Health Act (PEOSHA) to establish safety and health standards for state and local public employees. A copy of this Act is provided as Appendix I of this addendum. The PEOSHA Act requires that standards adopted in New Jersey must be at least as effective as the ones contained in the federal OSHA law and reg-

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**Figure C-1** The New Jersey Department of Labor adopted additional PEOSHA regulations that describe updated standards for protective clothing for the fire service.

ulations to provide safe and healthful employment conditions and places of employment.

In order to implement the PEOSHA Act, regulations establishing these standards (the standards in the Federal OSHA law and regulations) were adopted in 1984. In 1992, 1994, and 1998, the New Jersey Department of Labor adopted additional PEOSHA regulations that describe updated standards for protective clothing for the fire service, Figure C-1. New Jersey's regulations are different than the Federal OSHA regulations for fire protective clothing only. These state regulations include many new standards, including requirements for protective hoods, aerial ladder testing, and the adoption of the OSHA Respiratory Protection Standard 29 CFR 1910-134.

There are various compliance dates in these new regulations. Some call for eventual compliance with the new standards based on replacing existing equipment when it wears out, rather than disposing of existing equipment. Others require compliance by a particular date. Each is discussed in detail.

Like earlier PEOSHA regulations, the 1992, 1994, and 1998 regulations apply to:

1. "The State, or any department, division, bureau, board, council, agency or authority of the State, except any bi-state agency;"
2. "Any county, municipality, or any department, division, bureau, board, council, agency or authority of any county or municipality, or of any school district or special purpose district created pursuant to law."

## What Standards Apply to Firefighters?

Certain sections of the PEOSHA regulations apply only to firefighters. These are the regulations setting standards for fire protective clothing and equipment, and may be found in the regulations of the New Jersey Department of Labor. These regulations may be cited as N.J.A.C. 12:100-10 et seq. A copy of these regulations is included as Appendix II of this addendum.

All PEOSHA regulations relevant to the fire service apply to volunteer, paid, and part-paid firefighters. In some cases, implementation details are different for career and volunteer firefighters, although PEOSHA regulations do cover volunteers.

## How Regulations Are Enforced

The New Jersey Department of Labor enforces these regulations, except for the provisions related to respiratory protective equipment. The state Labor Department enforces all matters related to protective clothing and equipment.

The New Jersey Department of Health enforces the parts of this regulation related to respiratory protective equipment. The state Health Department also enforces PEOSHA regulations related to hazardous materials.

The New Jersey Department of Community Affairs (DCA) is responsible for all matters related to building safety under the Uniform Construction Code or Fire Safety under the Uniform Fire Safety Code. DCA does not enforce regulations or standards related to protective clothing for firefighters. However, DCA maintains information on these standards and works with the New Jersey Department of Treasury to update the state contract for protective clothing.

Any employees or employee representatives who believe that a violation of these regulations or imminent danger exists should notify their employer immediately. They may also contact the State and request an inspection. Firefighters can use the previous explanation as a guideline to which agency should be contacted. When in doubt, contact the New Jersey Department of Labor.

Requests for inspection must be in writing and must describe the violation or danger that is believed to exist. While such letters must be signed by the employee or employee representative to be acted upon, the State must withhold the name of anyone who requests an inspection if that person asks that his or her name be withheld.

Once contacted, the relevant state agency must perform an inspection at the earliest date possible. At this inspection, the employee who requested the inspection, a representative of the employer, and a representative of the employee are allowed to accompany the inspector to aid the inspection. Employees who participate in such inspections must receive normal pay for the time spent on the inspection.

Notices of violation and recommendations for improvements will be provided to the employer by the relevant State agency (Labor, Health, or Community Affairs) after the inspection. In most cases, the agency that performed the inspection will communicate with the employer. In the case of hazardous material inspec-

tions, however, the Department of Health will perform the inspection, but notices of violation, if any, will come from the Department of Labor based on the report of the Department of Health. Inspection reports and notices calling for corrections are generally sent to the mayor of a municipality or the board of a fire district, with copies provided to the chief of the fire department.

## Scope and Standards Information

These regulations apply to both career and volunteer members of the fire service. For purposes related to PEOSHA, use of the term “public employee” does not depend on whether or not the employee is paid. In some cases, different implementation details are set for career and volunteer members of the fire service, but the PEOSHA Act and regulations fully apply to career and volunteer firefighters.

These regulations are applicable to all firefighters. A “firefighter” is a public employee who engages in the physical activity of rescue, fire suppression, or both in buildings, enclosed structures, vehicles, vessels, or like properties that are involved in a fire or emergency situation. These regulations are not intended for those employed in the industries of construction, maritime, agriculture, airport crash rescue, or forest firefighting.

The protective clothing mandated by this regulation must be provided to all firefighters who participate in interior structural firefighting and overhaul. Interior structural firefighting is the physical activity of fire suppression, rescue, or both, which is conducted inside buildings or enclosed structures, after the incipient stage of the fire. Overhaul is the final control of a fire, with suppression of the main body of the fire and other pockets of fire, while searching for victims and performing salvage operations.

## Organization Information

Employers must prepare a written description of:

1. The organizational structure of the fire department;
2. The expected number of members of the fire department;
3. The functions the fire department is expected to perform.

This document must be available for inspection by:

1. Employees;
2. Their designated representatives (for example, labor unions); and
3. The New Jersey Department of Labor.

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## Physical Ability and Disability

The employer must assure that employees who are expected to fight interior structural fires are physically capable to do this work. The employer must make this determination in a way that is compatible with the Americans with Disabilities Act (ADA) of 1990, a federal law governing certain disability issues.

The details of ADA are beyond the scope of this document. For further information on ADA issues, review of the Act, discussions with legal advisors, or both may be necessary.

## Protective Clothing Requirements and Deadlines

Protective clothing, Figure C-2, must protect the:

1. Head, including face and eyes;
2. Body; and
3. Extremities (arms, legs, feet, and hands)

Employers must provide, at no cost to the employee, the protective clothing described in this regulation. The relationship between this mandate and any contracted clothing allowance must be agreed upon through collective bargaining between employers and employees. Employees who perform interior structural firefighting and overhaul must be provided with this equipment.

This law calls for cooperation from both employers and employees. Employers must assure that employees wear the protective clothing, use the safety equipment, and follow safety procedures. Employees must wear the required protective clothing, use the required equipment, and follow safety procedures at the times and in the ways specified by the law and their employer.

For the most part, these regulations call for the eventual replacement of current equipment with new equipment that complies with more stringent standards. However, career firefighters must wear protective coats, pants, station uniforms, and boots that comply with these new standards.

Firefighters must remember that meeting standards for protection or resistance to certain substances or forces does not mean that a product will protect a firefighter from every possible condition experienced in the line of duty or that exceeds the tests performed. Exposure to conditions that exceed the product's tested performance can lead to serious injury or death.

## Foot and Leg Protection

New boots must comply with NFPA 1974-1987, "Protective Footwear for Structural Fire Fighting."



### Structural Firefighting PPE Ensemble Components

- Helmet
- Goggles
- SCBA
- Coat
- Pants
- Boots
- Hood
- Radio
- Flashlight
- PASS Device
- Pocket Tools
- Gloves

**Figure C-2** A firefighter's structural firefighting ensemble.

This standard is the 1987 edition of NFPA standard number 1974.

Footwear that meets the NFPA standard will bear a label or stamp specifically stating that it complies with NFPA 1974-1987. Only boots with such a label will be considered to comply with the law.

The standard requires that boots will be at least 8 inches high, water resistant, with a puncture-resistant sole, a ladder shank, and an impact- and compression-

**Common Rubber Boot**

- Easy to Don
- Excellent Water Repellency
- Easy Decontamination
- Inexpensive
- Sloppy Fit

**Leather Pull-Up Boot**

- Lightweight
- Durable
- Comfortable
- Minimal Ankle Support

**Leather Lace-Up Boot**

- Tight Fit
- Ankle Support
- Durable
- Expensive

**Figure C-3** Different types of structural firefighting footwear.

resistant toe cap. There are several options for footwear available to firefighters, Figure C-3.

Boots must also meet standards for resistance to heat, corrosion, punctures, electricity, impact and compression, flame, abrasion, wear, and water. The details of these technical standards can be found in the NFPA text, along with information on testing methods.

**Compliance Deadlines.** Career firefighters must wear boots and bunker pants that comply with the standard at this time.

Volunteer firefighters must wear boots and bunker pants that comply with the standard when their current boots are next replaced or when they are worn, whichever comes first.

## Body Protection

This section covers both turnout (or bunker) gear and station uniforms.

**Turnout Gear.** Turnout gear must comply with NFPA 1971-1986, "Protective Clothing for Structural Fire Fighting." This is the 1986 edition of NFPA standard number 1971. Turnout gear includes both a protective coat and protective pants.

Turnout gear that meets the NFPA standard will bear a label specifically stating that it fully complies with NFPA 1971-1986, Figure C-4. Only coats and pants with such a label will be considered to comply with the law.

**Figure C-4** NFPA-compliant PPE components should have a permanently affixed label.

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The NFPA standard for turnout gear includes tests for thermal protection; thermal shrinkage; heat, char, and ignition resistance; tear resistance; and retroreflectivity.

The protective coat is designed to protect the upper torso, neck, arms, and wrists. It must be composed of three layers: outer shell, moisture barrier, and thermal barrier.

Because it will be worn with protective trousers, the new standard protective coat may be shorter than coats used in the past. To protect the neck, a collar, at least 4 inches wide and containing at least the same three layers as the body of the coat, must be part of the coat. Coats must also contain wristlets that meet the same performance standards as the body of the coat.

High visibility safety trim must be included on the protective coat. This trim must be at least 2 inches wide and have both retroreflective and fluorescent surfaces. Each coat must have a continuous band of fluorescent and retroreflective material, at least 2 inches wide, around the coat, as well as a similar band at least 2 inches wide around each wrist. Each coat must have at least 325 square inches of fluorescent trim. Retroreflective surfaces must be at least 0.625 inches wide.

Protective pants, also known as bunker pants, are required. These are designed to protect the lower torso and legs (excluding the ankles and feet). Like the protective coat, protective pants must be composed of three layers: outer shell, moisture barrier, and thermal barrier.

Bands of the same high visibility trim used on the protective coat must be placed between the bottom hem and the knee of each leg of the pants. Protective trouser trim must include at least 80 square inches of fluorescent surface area.

For career firefighters, these protective garments must be worn in conjunction with a station uniform that complies with the regulations.

Career firefighters must wear protective coats and pants that meet the standard at this time.

Volunteer firefighters must wear protective coats and pants that comply with the new standard when their current coats are no longer serviceable.

Volunteer firefighters must wear protective pants when they wear the shorter boots.

**Station Uniforms.** Station uniforms may comply with NFPA 1975-1985, "Station/Work Uniforms for Fire Fighters," or be made of a nonmeltable material, such as cotton. Station uniforms include a shirt and pants. Station gear that meets the NFPA standard will bear a label or stamp specifically stating that it fully complies with NFPA 1975-1985. State PEOSHA regulations do not require station uniforms that comply with this NFPA standard.

Station uniforms are not meant to take the place of turnout gear. Career firefighters must wear station uniforms that comply with this regulation at this time. Station uniforms are not required for volunteers.

### Hand Protection

New gloves must comply with NFPA 1973-1988, "Gloves for Structural Fire Fighting." This standard is the 1988 edition of NFPA standard number 1973.

Gloves that meet the NFPA standard will bear a label inside each glove specifically stating that it fully complies with NFPA 1973-1988. Only gloves with such a label will be considered to comply with the law.

Compliant gloves are designed to minimize the effects of flame, heat, sharp objects, and other hazards associated with structural firefighting. Gloves must provide complete and secure thermal and moisture protection, and are designed to interfere as little as possible with movement and dexterity.

Gloves must extend at least 1 inch above the wrist, and must also contain a secure wristlet to prevent the entry of embers and other matter.

There are specific sizing criteria in the NFPA standard to ensure uniformity of hand measurement and sizing. These criteria are included in the standard.

Gloves must comply with the standard at this time.

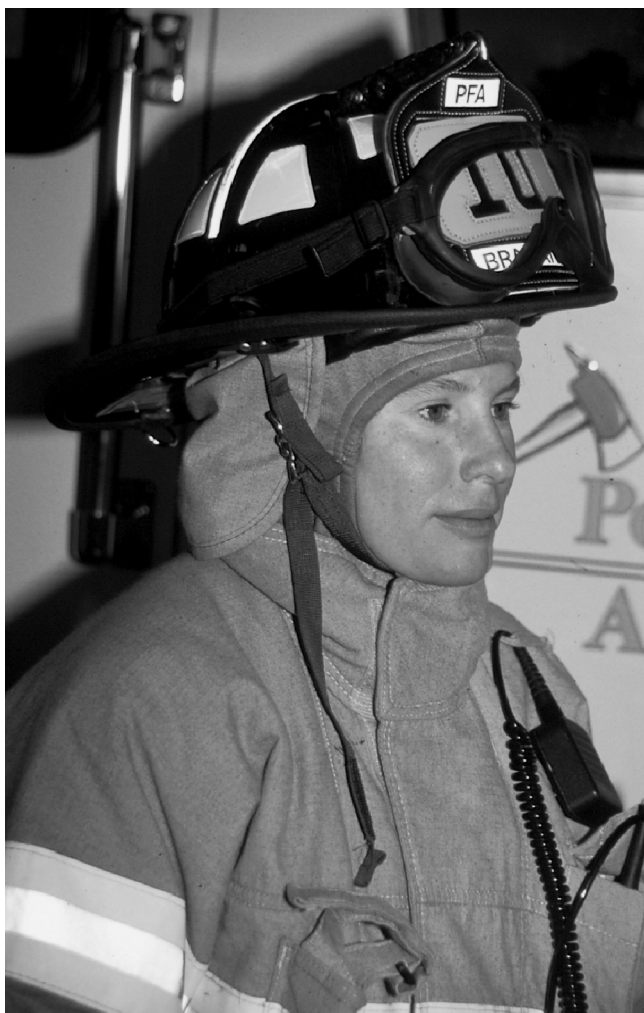
### Head, Eye, and Face Protection (Helmets and Protective Hoods)

Helmets must comply either with the existing OSHA standard for helmets, found in Federal regulations at 29 CFR Part 1910.156(e)(5), or NFPA 1972-1987, "Helmets for Structural Fire Fighting." The 1994 State PEOSHA regulation continues to approve of the current OSHA standard helmet and adds the NFPA-standard helmet as an alternative. Protective hoods must comply with NFPA 1971-1991, "Protective Clothing for Structural Fire Fighting."

Helmets must protect the head, eyes, and face, and must include earflaps and a chinstrap, Figure C-5.

Helmets that meet the NFPA standard will bear a label specifically stating that it fully complies with NFPA 1972-1987. Helmets that comply with the OSHA standard will also bear a label specifically stating that it complies with the appropriate OSHA standard. Only helmets bearing one of these labels will be considered to comply with the law.

The NFPA performance requirements for helmets cover protection from impact, penetration, heat, flame, and electricity. Ancillary features such as the chinstrap, ear covers, face shield, and retroreflective markings are also designed to meet NFPA criteria, although the criteria and testing are not necessarily identical to those for the body of the helmet.



**Figure C-5** Helmets must include earflaps and a chinstrap.

Face shields, Figure C-6, that comply with the standards will bear a label stating compliance with the requirements of 29 CFR 1910.134. The label will also point out that users may still require additional eye protection.

Protective hoods must protect areas of the head and neck excluding the face, which is normally protected by the SCBA facepiece. Protective hoods meeting the NFPA standard will bear a label specifically stating that it fully complies with NFPA 1971-1991.

This regulation allows the use of helmets that comply with the existing OSHA standard, and allows the use of the NFPA helmet standard as an alternative. Helmets must comply with this regulation at this time.

Protective hoods must be provided and worn at this time unless the hood interferes with the proper fit of the firefighter's helmet. If this is the case, a hood shall be provided at such time as the helmet becomes unserviceable and is replaced.



**Figure C-6** A face shield on a helmet.

## Respiratory Protection Devices

Respiratory protection equipment must comply with 29 CFR 1910.134 and NFPA 1981-1987, "Open-Circuit Self-Contained Breathing Apparatus for Firefighters." This is the 1987 edition of NFPA standard number 1981.

Employers must establish and maintain a respiratory protection program complying with 29 CFR 1910.134. This OSHA standard has been adopted by PEOSHA in its entirety.

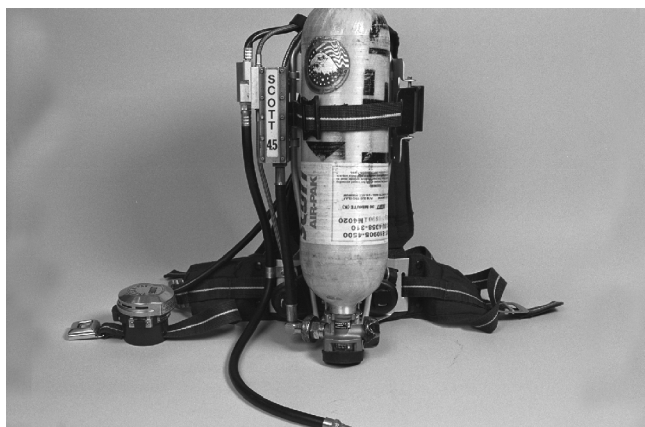
Respiratory protection equipment that complies with the NFPA standard will bear a label specifically stating that it complies with NFPA 1981. Only equipment that bears such a label will be considered to comply with the law.

To bear the NFPA label, the National Institute of Occupational Safety and Health (NIOSH) and the Mine Safety and Health Administration must certify this equipment. These organizations require that the equipment weigh no more than 35 pounds and carry at least a 30-minute supply of air.

Respiratory protection equipment must be of the open circulation type, which means that exhaled air is expelled from the equipment and not reused in any way.

There are two types of open circulation systems, positive pressure and negative pressure. Only positive pressure open circulation systems comply with the NFPA standard, Figure C-7. Devices that operate in positive pressure mode but can be switched to negative pressure mode do not meet the standard.

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**Figure C-7** Open-circuit SCBAs from different manufacturers.

No respiratory protection equipment that has been approved by the Bureau of Mines complies with the NFPA standard, regardless of any grandfather provision or statement to the contrary by any government or private group.

Respiratory protection equipment must meet standards for airflow as well as resistance to heat, vibration and shock, flame, corrosion, dust, facepiece lens abrasion, and voice communication.

Respiratory protection equipment ordered or purchased after January 4, 1993, must comply with the NFPA standard. Existing respirators that comply with the previous OSHA standards may be worn until they are unserviceable under certain conditions. Specifically, these respirators may be used with approved air cylinders from other approved systems as long as they are of the same capacity and pressure rating. Existing respirators that are switchable from demand to positive pressure mode must be used in positive pressure mode during all firefighting and overhaul work.

Career and volunteer firefighters must be provided with compliant respiratory protection equipment upon the next replacement of current equipment.

## Life-Safety Rope, Harness, and Hardware

Life-safety rope, Figure C-8, harnesses, and hardware must comply with NFPA 1983-1985. This standard is the 1985 edition of NFPA standards number 1983.

This equipment need only be provided in those departments that train and perform rope rescue services.

Life-safety rope that meets the NFPA standard will bear a label specifically stating that it complies with NFPA 1983. It will also contain an identification tape wound into the full length of the rope bearing the same statement.

Only life-safety ropes with both the label and the tape will be considered to comply with the law. Rope with a tape but without a label should not be used for rescue purposes, because removal of the label is one way of marking rope that is no longer suitable for rescue work.

Life-safety rope must be of block creel construction, which means that lengths are made without knots or splices.

Life-safety rope that has been previously used for rescue or non-rescue purposes should be destroyed or



**Figure C-8** Life-safety rope.

removed from use for rescue purposes. Failure to observe this recommendation could lead to serious injury or death because no acceptable means of testing used rope exists.

Life-safety rope is available in two classes—one-person rope and two-person rope. Ropes that comply with the law will bear a label identifying whether it is one- or two-person rope. One-person rope is designed with a maximum working load of at least 300 pounds and a tensile strength of at least 4,500 pounds. In contrast, two-person rope is designed with a maximum working load of at least 600 pounds and a tensile strength of at least 9,000 pounds.

Life-safety rope, harness, and hardware must comply with this standard at this time.

**Life-Safety Harnesses.** Life-safety harnesses meeting the NFPA standard will bear a cloth label or a riv-



**Figure C-9** A Class I harness.

eted metal tag stating that it complies with NFPA 1983. Only harnesses with such a label or tag will be considered to comply with the law.

Webbing for these harnesses must be constructed of virgin continuous fibers and be at least 1-3/4 inches wide. Webbing, structural stitching, and rivets are designed and tested to meet and exceed their intended use situations.

Harnesses are designated as being from one of three classes. Class I harnesses fasten around the waist. They are designed to secure one person to a ladder or to bear the weight of one person in an emergency rescue. Class I harnesses, Figure C-9, should not be worn by firefighters during efforts to rescue another person.

Class II harnesses, Figure C-10, are worn around the waist and around the thighs or under the buttocks. They are designed for use in rescue situations where two-person loads (e.g., one firefighter and one victim) may be encountered.

Class III harnesses, Figure C-11, are fastened around the waist, around the thighs or under the buttocks, and over the shoulders. They are designed for rescue situations where a two-person load and inverting may be encountered.

**Life-Safety Hardware.** There is no NFPA label applied to life-safety hardware, but load-bearing hardware will carry the name of the manufacturer and the MIL-SPEC number, if applicable.

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**Figure C-10** A Class II harness.



**Figure C-11** A Class III harness.

All hardware must be able to withstand corrosion in a laboratory salt spray test. In addition, all load-bearing hardware, buckles, rings, snap-links, ascent devices, and descent devices are tested to withstand forces that match and exceed expected use conditions. Snap-link gates, which are load-bearing, gated fasteners, must lock automatically.

## Personal Alert Safety System (PASS)

Personal Alert Safety System (PASS) devices must comply with NFPA 1982-1988. This is the 1988 edition of NFPA standard number 1982. However, devices that comply with the 1983 edition of this standard, NFPA 1982-1983, may continue in use until they become unserviceable.

PASS devices are motion-detector-based devices, worn by individual firefighters, that emit an alarm when a firefighter has not moved in approximately 30 seconds. The purpose of a PASS is to alert other firefighters that the wearer may be unable to move and may be in need of assistance. They must be worn by firefighters in the following situations:

1. While engaging in interior structural firefighting;
2. While working in confined spaces; and
3. During all phases of overhaul.

The PASS device shall be attached to the exterior of the firefighter's turnout gear.

PASS devices that meet the NFPA standard will bear a label specifically stating that it fully complies with NFPA Standard 1982. There are 1988 and 1983 editions of this standard, and an explanation of which edition of the standard must be met is provided under "Compliance Deadlines." Only devices with labels



**Figure C-12** A PASS device.

specifically mentioning the appropriate standard will be considered to comply with the law.

PASS devices, Figure C-12, emit an alarm sound when the firefighter has not moved for approximately 30 seconds, or when the firefighter manually operates the alarm switch. They are battery-powered devices, weighing no more than 16 ounces, which can be attached to a firefighter's SCBA gear or elsewhere.

PASS are designed to be operated in three modes—automatic, manual, and off. In automatic mode, the motion detector will activate a pre-alarm warning after approximately 30 seconds of no motion by the wearer. This warning sound will be distinct from the alarm sound. Motion sensed after the pre-alarm warning sound will return the device to automatic mode. Under normal operating conditions, the device will be able to sound its alarm for at least one hour.

- When the wearer or operator switches the device to manual mode, the alarm will sound within one second.
- In the off mode, the device does not function and there is no drain on battery power.
- The switch used to change modes must be operable by a hand wearing a heavy glove.

Turning the switch to the off position requires two distinct motions to limit the possibility of accidental shutoff.

The device must also emit a low battery warning sound when the battery is drained to the point it would be unable to sustain a full alarm sound for one hour. The low battery warning is distinct from other sounds emitted by the device.

A career or volunteer firefighter who does not currently have any PASS device must wear a PASS device that complies with NFPA 1982-1988. A career or volunteer firefighter who has a PASS that does not comply with any edition of NFPA Standard Number 1982 must have a device that complies with NFPA 1982-1988 by January 4, 1994.

A career or volunteer firefighter whose current PASS complies with the 1983 edition of the NFPA standard (NFPA 1982-1983) must be issued a device that complies with the 1988 edition of the standard (NFPA 1982-1988) upon replacement of the current device.

Many fire departments have begun to use Integrated PASS units: PASS and SCBA in the same appliance. This application meets the previous intent of regulation so long as the Integrated PASS unit meets all the previously stated requirements and is worn, not only while engaged in interior structural firefighting, but while working in a confined space, dur-



**Figure C-13** Apparatus headsets provide hearing protection for firefighters.

ing all phases of overhaul, and whenever there is a possibility that the previous actions could occur.

## Hearing Protection

PEOSHA hearing protection standards do not apply to working in emergency situations. They apply only to the use of power tools or any other noise-emitting devices during testing or other non-emergency situations, Figure C-13.

In general, noise above 90 decibels, when encountered in a non-emergency situation, requires hearing protection provided by the employer. However, hearing protection is not required (even in a non-emergency situation) if its use would create an additional hazard to the user.

Employers must engage in a noise reduction program to identify potentially harmful noise sources and reduce or eliminate these sources. The program should be described in writing by the employer and may be incorporated into the employer's Standard Operating Procedures.

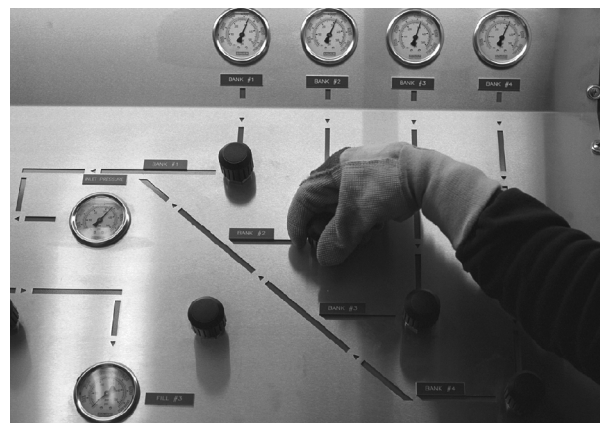
Federal and state regulations on general workplace noise (N.J.A.C. 12:100-4.2(a)6 and US CFR 1910.95) also apply to firefighters.

Career and volunteer firefighters are covered by PEOSHA hearing protection rules at this time.

## Filling Air Cylinders

Filling of air cylinders must be performed only by employees specifically trained to do this work. Filling gas cylinders must be done only in areas equipped to protect the operator and nearby personnel, Figure C-14. These regulations on filling air cylinders are effective at this time.

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**Figure C-14** Filling air cylinders must be done in specialized areas.

### Apparatus Operation and Passenger Safety

All firefighters (except the driver) must don protective gear before boarding apparatus leaving the station for a fire or other emergency. No firefighter is allowed to put on a protective coat, boots, pants, helmet, or other protective gear while riding on moving apparatus.

Employers must provide seat belts or harnesses for all firefighters riding apparatus, Figure C-15.

All fire apparatus purchased or remanufactured after January 4, 1993, must have enclosed seating with seat belts for all personnel riding on the apparatus.

Standards for this seating can be found in the following NFPA standards:

- Pumpers—NFPA 1901-1991
- Initial Attack—NFPA 1902-1991
- Mobile Water Supply—NFPA 1903-1991
- Aerial Ladder and Elevating Platform—NFPA 1904-1991

These standards call for fully enclosed seats with seat belts for whatever number of personnel is spec-



**Figure C-15** Employers must provide seat belts or harnesses for all firefighters riding apparatus.

ified by the purchasing employer. A seat must be provided for each firefighter the apparatus is designed to carry.

Each seat must be at least 18 inches wide by 15 inches deep. Headroom must be at least 36 inches



**Figure C-16** Maintenance of firefighter equipment is important.

from the top of the cushion to any overhead obstruction. Each seat must have at least 22 inches of shoulder room. Driver seats must be adjustable from front to back, and driver compartments must have seating capacity for at least two firefighters.

## Maintenance of Firefighter Equipment

Any equipment required by PEOSHA rules must be removed from service if it is damaged or unserviceable, Figure C-16.

Fire department aerial apparatus is required under these revised standards to be tested in accordance with NFPA 1914-1991, Testing Fire Department Aerial Devices. This standard calls for annual visual, operational, and load testing. Additionally, every five years, or if the ladder is damaged or fails the annual testing, ladders shall be subjected to complete inspections and nondestructive testing as described in NFPA 1914-1991.

This standard is in effect at this time.



## PUBLIC EMPLOYEES OCCUPATIONAL SAFETY AND HEALTH BLOODBORNE PATHOGENS STANDARD

Many workers risk on-the-job contact with blood and other body fluids. These materials may contain pathogens (organisms that can cause serious disease). Of major concern are the hepatitis B virus (HBV), the hepatitis C virus (HCV), and the human immunodeficiency virus (HIV), the cause of Acquired Immunodeficiency Syndrome (AIDS).

On December 6, 1991, federal OSHA adopted 29 CFR 1910.1030, "Bloodborne Pathogens." This standard protects workers in the private sector who come in contact with blood or other potentially infectious materials. On July 6, 1993, the federal OSHA Standard was adopted under the New Jersey Public Employees Occupational Safety and Health (PEOSH) Act to protect public employees in New Jersey.

**Note:** This information bulletin provides a general overview of the New Jersey PEOSH Bloodborne Pathogens Standard. Consult the standard itself for complete information. This information was prepared for the New Jersey Department of Health and Senior Services, Public Employees Occupational Safety and Health Program by the University of Medicine and Dentistry of New Jersey, Robert Wood Johnson Medical School, Department of Environmental and Community Medicine, and the Division of Consumer Health Education.

The standard covers all public employees who may have contact with blood or other potentially infectious materials because of their work. Employees most likely to be covered include but are not limited to:

- Health care workers (e.g., medical and dental personnel, school nurses);
- Emergency medical services employees;
- Firefighters (including volunteers);
- Police officers;
- Correctional officers;
- Some laundry and housekeeping staff;
- Lifeguards; and
- Workers in institutions for the developmentally disabled.

## Potentially Infectious Materials

The standard defines other potentially infectious materials, such as semen and vaginal secretions; fluid from the brain, spine, lungs, and amniotic sac; fluid around joints, the heart, and the abdominal lining; saliva in dental procedures; all body fluids that are visibly contaminated with blood; and all body fluids when you cannot tell which type they are.

Also considered as potentially infectious materials are any unfixed human tissue or organs other than skin, and animals or cells infected with HIV or HBV for medical research. (Research laboratories for other bloodborne pathogens, such as hepatitis C, could also be included.)

## How Are Employees Exposed?

Occupational exposures occur when employees do tasks that can cause blood or other potentially infectious materials to enter their bodies. These exposures happen through cuts, cracks, or abrasions in the skin; splashing, or spraying into the eyes, mouth, or nose; and puncture wounds from contaminated sharps (needles, broken glass).

## Major Requirements of the Standard

The major requirements of the standard are as follows:

- Employee exposure control plan;
- Methods to prevent exposure;
- Hepatitis B vaccinations;
- Medical evaluation and follow-up;
- Employee training;
- Recordkeeping;
- Special precautions for HIV and HBV research laboratories. (Research laboratories for other bloodborne pathogens, such as hepatitis C, could also be included.)

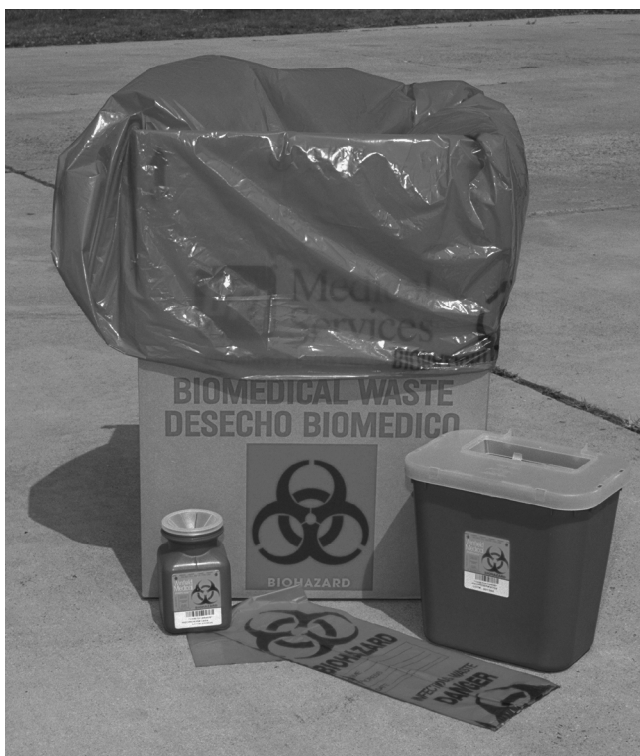
**The Exposure Control Plan.** Employers must prepare a written plan that includes the job classification tasks and procedures in which employees have occupational exposure, the schedule and methods for implementing the requirements of the standard, and procedures for documenting the circumstances surrounding an employee's exposure. The plan must be accessible to employees. It also must be updated at least annually or more often if work tasks or control methods change.

**Methods to Prevent Exposure.** The standard describes the following methods to prevent occupational exposure to bloodborne pathogens:

- **Universal Precautions**—Handle all human blood or other potentially infectious materials as if they were contaminated. This approach is known as universal precautions.
- **Engineering Controls**—Use engineering controls whenever possible. These are methods that contain or remove the hazard, such as puncture-resistant containers for sharps, splash guards, or self-sheathing needles.
- **Work Practice Procedures**—Use work practice procedures that reduce the chances of exposure. Employers must provide the necessary equipment to implement them. These procedures include:
  - Immediately wash hands (and other parts of the body as needed) following any contact with blood or other potentially infectious materials. This may not be possible for certain jobs, such as police work or emergency medical services. In these cases, employers must provide antiseptic hand cleansers, as well as paper or cloth towels. Employees must wash with running water and soap as soon as they can after the exposure, Figure C-17.
  - Wash hands as soon as possible after removing gloves or other protective equipment.
  - Do not recap, break, or bend by hand any contaminated needles. Put used needles and other sharps into special containers until they can be processed or disposed of, Figure C-18. These containers must be closable, puncture-resistant, and leakproof. They should be labeled and put close to the area where sharps are used. Containers should never be overfilled.
  - Do not eat, drink, smoke, apply makeup or lip balm, or handle contact lenses in areas where exposure might occur. Don't store food or drinks in potentially contaminated areas like refrigerators used to store lab specimens.
  - Use methods to prevent splashing, spraying, or spattering when doing any procedures involving blood or other potentially infectious materials. Don't use your mouth for suctioning or pipetting.
  - Use leakproof containers for collecting, handling, processing, storing, carrying, or shipping blood specimens or other potentially infectious materials.
  - Label or use color codes on containers and refrigerators used for storage, carrying, or shipping. (See the standard for information on using the biohazard symbol.)
  - Decontaminate any equipment before it is sent out for repair.
- **Personal Protective Equipment**—Wear personal protective equipment when exposure cannot be



**Figure C-17** Immediately wash hands as soon as possible after the exposure.



**Figure C-18** Contaminated needles and sharps must be disposed of in special containers.

avoided by other means. This equipment includes gloves, face shields, goggles, gowns, lab coats, mouthpieces, pocket masks, and resuscitation bags, Figure C-19. Employers must provide the equipment free of charge. (They must also provide alternatives to employees who are allergic to the gloves normally used.) Personal protective equipment must be accessible and available in sizes to fit each employee. It should be taken off

and put in designated containers for cleaning, repair, or disposal if it becomes contaminated or damaged. Employers are required to clean and repair equipment that can be reused. This includes lab coats that are used as personal protective equipment.

■ **Housekeeping Requirements**—These requirements include the following:

- Establish written procedures and schedules for regular cleaning of the worksite and for disinfecting contaminated surfaces and materials.
- Do not pick up potentially contaminated broken glassware. Use tongs, forceps, or a brush and dust pan.
- Only use containers made for storing, carrying, and shipping sharps.
- Handle contaminated laundry as little as possible and wear gloves (and other protective equipment, if necessary). It must be stored and transported in labeled, leakproof containers.
- Follow state laws for handling and disposing of regulated waste. Contact the New Jersey Department of Environmental Protection, Bureau of Technical Assistance, PO Box 414, 120 South Street, Trenton, NJ 08625-0414. (609) 984-6985.

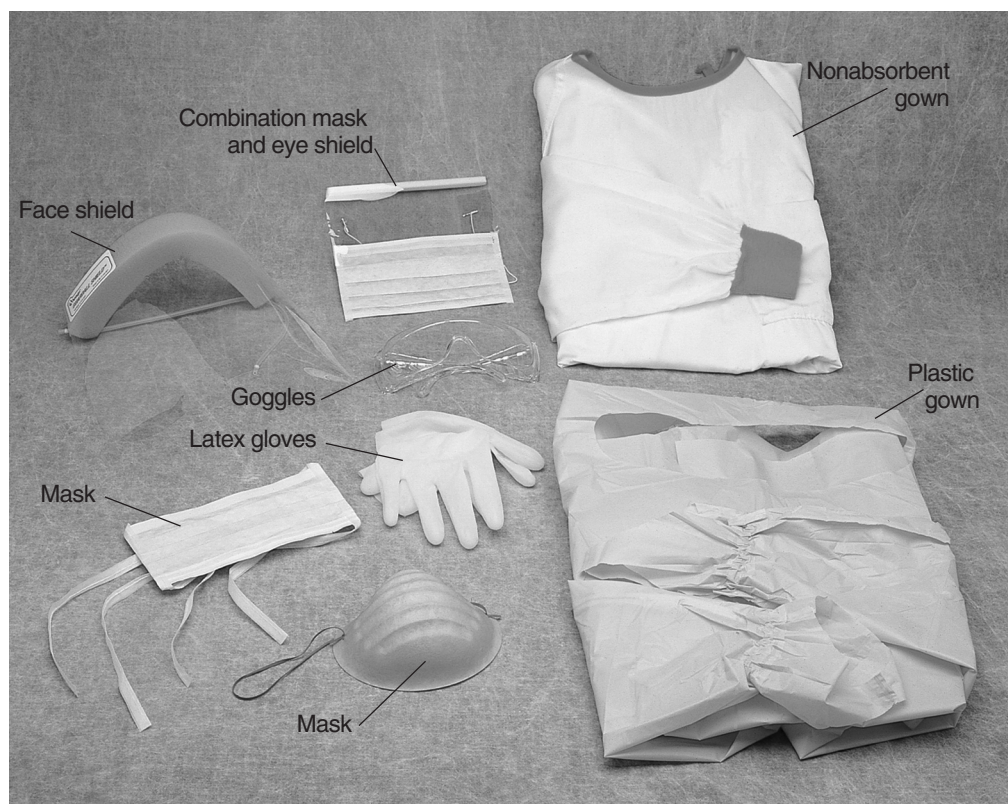
■ **Hepatitis B Vaccinations**—Employers must offer free hepatitis B vaccinations to all employees who have anticipated exposure to blood or other potentially infectious materials. The vaccinations must be given within 10 working days after employees begin jobs that have the potential for exposure. Employees may decline the vaccination, but must sign a “declination” statement if they do so.

■ **Medical Evaluation for Exposed Employees**—Employers are required to offer free, confidential material evaluation and follow-up to all employees who receive an occupational exposure to blood or other potentially infectious materials. These services must include: a written report of how the exposure occurred; testing the source person if possible; testing the exposed employee’s blood if she or he consents; and postexposure treatment and counseling.

■ **Employee Training About Potential Hazards**—Employers are required to provide initial training for employees who have anticipated occupational exposure. This training must cover all of the major parts of the standard and be repeated annually.

■ Employees must also have access to a copy of the standard and the exposure control plan.

■ **Recordkeeping**—Confidential records about employee exposures, medical evaluation, and follow-up must be kept for the length of employment plus 30 years. Records showing that

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**Figure C-19** Types of personal protective equipment.

employee training has occurred must be kept for three years.

- Special Precautions for HIV and HBV Research Laboratories—Additional procedures, employee training, and equipment are required for HIV and HBV research laboratories. Consult the standard for details. See Table C-1.

## Training Resources

Agencies and organizations with free or low-cost training materials about bloodborne pathogens are listed in Figure C-20.

TABLE C-1

## Standard Precautions for Infection Control



### WASH HANDS (PLAIN SOAP)

Wash after touching **blood, body fluids, secretions, excretions**, and **contaminated items**.

Wash immediately **after gloves are removed** and **between patient contacts**.

Avoid transfer of microorganisms to other patients or environments.



### WEAR GLOVES

Wear when touching **blood, body fluids, secretions, excretions**, and **contaminated items**.

Put on **clean** gloves just **before touching mucous membranes** and **nonintact skin**.

Change gloves between tasks and procedures on the same patient after contact with material that may contain high concentrations of microorganisms. Remove gloves promptly after use, before touching noncontaminated items and environmental surfaces, and before going to another patient, and wash hands immediately to avoid transfer of microorganisms to other patients or environments.



### WEAR MASK AND EYE PROTECTION OR FACE SHIELD

Protect mucous membranes of the eyes, nose, and mouth during procedures and patient care activities that are likely to generate **splashes** or **sprays** of **blood, body fluids, secretions**, or **excretions**.



### WEAR GOWN

Protect skin and prevent soiling of clothing during procedures that are likely to generate **splashes** or **sprays** of **blood, body fluids, secretions**, or **excretions**. Remove a soiled gown as promptly as possible and wash hands to avoid transfer of microorganisms to other patients or environments.



### PATIENT CARE EQUIPMENT

Handle used patient care equipment soiled with **blood, body fluids, secretions**, or **excretions** in a manner that prevents skin and mucous membrane exposures, contamination of clothing, and transfer of microorganisms to other patients or environments. Ensure that reusable equipment is not used for the care of another patient until it has been appropriately cleaned and reprocessed and that single-use items are properly discarded.



### LINEN

Handle, transport, and process used linen soiled with **blood, body fluids, secretions**, or **excretions** in a manner that prevents exposures and contamination of clothing and avoids transfer of microorganisms to other patients or environments.



Use **resuscitation devices** as an alternative to mouth-to-mouth resuscitation.

### **New Jersey Department of Health and Senior Services**

#### **Public Employees Occupational Safety and Health (PEOSH) Program**

CN 360, 7th Floor  
Trenton, NJ 08625-0360  
(609) 984-1863

The PEOSH Program has developed a model Exposure Control Plan which is intended to serve as an employer compliance guide to the Bloodborne Pathogens Standard. The model plan is available from the PEOSH Program at the above address or from our Internet site at <http://www.state.nj.us/health/eoh/peoshweb/>.

#### **American Hospital Association Services, Inc.**

PO Box 92683  
Chicago, IL 60675-2683  
(800)AHA-2626, Fax: (312) 422-4505

AHA has several publications of interest, including OSHA's Final Bloodborne Pathogens Standard: A Special Briefing.

#### **Center for Disease Control**

AIDS Clearing House  
(800) 458-5231

#### **Federal Emergency Management Agency (FEMA)**

National Fire Academy  
Publications Department  
16825 S. Seton Avenue  
Emmitsburg, MD 21727  
(301) 447-6771

FEMA has a free curriculum for firefighters and emergency responders.

#### **International Association of Fire Fighters**

1750 New York Avenue  
Washington, DC 20006  
(202) 737-8484

IAFF has free materials for firefighters.

#### **National Institute for Occupational Safety and Health**

Attention: Publications  
4676 Columbia Parkway  
Cincinnati, OH 45226  
(800) 356-4674

NIOSH has two publications that are especially useful: Guidelines for Protecting the Safety and Health of Health Care Workers, 1988. DHHS (NIOSH) Publication #88-119.

A Curriculum Guide for Public Safety and Emergency-Response Workers, 1989. DHHS (NIOSH) Publication #89-108.

Some unions and professional organizations have developed materials for their members. In addition, a few of the manufacturers of hepatitis B vaccine have prepared information.

**Figure C-20**



## EMERGENCY LIGHTS

This section is intended to provide guidance to members of New Jersey's fire service on the use of emergency lights based on existing laws governing use and operation.

The first section, Document C-1, will provide an overview of the use of blue lights.

The second section, Document C-2, provides information on the use of red lights for emergency purposes.

### BLUE LIGHTS

#### **39:3-54.7. MEMBER OF A VOLUNTEER FIRE COMPANY OR FIRST AID OR RESCUE SQUAD: EMERGENCY WARNING LIGHTS ON MOTOR VEHICLE**

An active member in good standing of a volunteer fire company or a volunteer first aid or rescue squad recognized by and rendering service in any municipality may display on a motor vehicle owned by him or by a member of his household an emergency warning light or lights as provided in this act.

#### **39:3-54.8. TIME OF OPERATION**

Emergency warning lights may be operated only while the vehicle is being used in answering a fire or emergency call.

#### **39:3-54.9. SPECIFICATIONS**

Emergency warning lights shall be temporarily attached, removable lights of the flashing or revolving type not more than 7.5 inches in diameter, equipped with a blue lens and a lamp of not more than 51 candlepower and shall be controlled by a switch installed inside the vehicle.

#### **39:3-54.10. PLACEMENT ON MOTOR VEHICLE**

No more than two emergency warning lights shall be installed on a vehicle. If one light is used it shall be installed in the center of the roof of the car, or on the left windshield column in a position where a spotlight is normally located, or on the front of the vehicle so that the top of the warning light is no higher than the top of the vehicle's headlights. If two lights are used they may be placed on the windshield columns on each side of the vehicle where spotlights are normally located, or on either side of the roof at the front of the vehicle directly back of the top of the windshield. Under no circumstances may one light be placed on the roof and one on the windshield column in the spotlight position.

#### **39:3-54.11. IDENTIFICATION CARDS; ISSUANCE; USE**

The Director of Motor Vehicles shall prepare suitable identification cards bearing the signature of the Director which, upon request of the mayor or chief executive officer of any municipality recognizing and being served by a volunteer fire company or first aid or rescue squad on a form and in a manner prescribed by the Director, shall be forwarded to said mayor or chief executive officer, to be countersigned and issued by said mayor or chief executive officer to the members in good standing of such volunteer fire company, or a first aid or rescue squad. Identification cards issued pursuant to this section shall be considered permits to display and operate emergency warning lights as provided for in this act, and no emergency warning light shall be mounted prior to the issuance of such identification cards. Each member of a volunteer fire company or a volunteer first aid or rescue squad must carry such identification card while an emergency warning light or lights are displayed on his vehicle.

#### **39:3-54.12. RIGHTS OF MOTOR VEHICLE WITH LIGHT IN OPERATION**

Nothing contained herein is intended to grant to any member of a volunteer fire company or volunteer first aid or rescue squad any privileges or exemptions denied to the drivers of other vehicles, and such members displaying emergency warning lights shall drive with due regard for the safety of all persons and shall obey all the traffic laws of this State, provided, however, that the drivers of non-emergency vehicles upon any highway shall yield the right of way to the vehicle of any member of a volunteer fire company or a volunteer first aid or rescue squad displaying emergency warning lights in the same manner as is provided for authorized emergency vehicles pursuant to R.S. 39:4-92.

**30 ■ SECTION C****39:3-54.13. VIOLATIONS; PENALTY**

Any person authorized to display emergency warning lights pursuant to this act who willfully displays or uses such emergency warning lights in violation of the provisions of this act, shall be li-

able to a penalty of not more than \$50.00 and his privilege to display such emergency warning lights may be suspended or revoked by the Director of Motor Vehicles.

## RED LIGHTS

**39:3-54.15. RED EMERGENCY WARNING LIGHTS ON MOTOR VEHICLES OWNED BY ACTIVE VOLUNTEER FIRE CHIEF OR FIRST ASSISTANT CHIEF**

An active chief or first assistant chief of a volunteer fire company recognized by and rendering service in any municipality may display on a motor vehicle owned by him and registered in his name a red emergency warning light, or lights, a siren, or both, as prescribed in this act. The size and type of lights and siren, and the location of their controls, shall be determined by the Director of the Division of Motor Vehicles.

These laws permit both chiefs and first assistant chiefs of volunteer fire companies to display a red emergency warning light or lights, a siren, or both on a motor vehicle owned and registered by them.

They contain specifications for mounting lights and sirens and state that neither the lights nor the sirens shall be operated unless the vehicle is being used by the chief or first assistant chief to answer a fire or emergency call.

The Director of the Division of Motor Vehicles is authorized to determine the size and the type of lights and sirens that can be used and the location of their controls. The Director also prepares identification cards, which will authorize chiefs and assistant chiefs to display lights and sirens. These cards are signed by the director and issued and countersigned by the mayor or chief executive officer of the municipality served by the chief or first assistant chief.

There are no special privileges or exemptions to chiefs or first assistant chiefs using the lights or sirens that are denied to other drivers; however, the laws do require other drivers to yield the right of way to the vehicle of a chief or first assistant chief displaying the lights.

For a violation of the laws a penalty of not more than \$50.00 would be imposed. A violator also would lose the privilege to display the lights or siren.

**39:3-54.16. PLACEMENT OF RED EMERGENCY WARNING LIGHTS**

All red emergency lights shall be mounted on the exterior of the motor vehicle. No more than two red emergency warning lights shall be installed on a vehicle. If one light is used it shall be installed in the center of the roof of the vehicle, or on the left windshield column in a position where a spotlight is normally located. If two lights are used they may be placed on the windshield columns on each side of the vehicle where spotlights are normally mounted, or on either side of the roof at the front of the vehicle directly back of the top of the windshield. Under no circumstances may one light be placed on the roof and one on the windshield column in the spotlight position. They shall be operated only while the vehicle is being used by the registered owner chief or first assistant chief in answering a fire or emergency call.

**39:3-54.17. PLACEMENT OF SIRENS**

All sirens shall be mounted under the hood of the motor vehicle and shall be operated only while the vehicle is being used by the registered owner chief or first assistant chief in answering a fire or emergency call.

**39:3-54.18. IDENTIFICATION CARDS FOR CHIEF OR FIRST ASSISTANT CHIEF; ISSUANCE; PURPOSE**

The Director of the Division of Motor Vehicles shall prepare suitable identification cards bearing the signature of the director, which, upon request of the mayor or chief executive officer of any municipality recognizing and being served by a volunteer fire company or a volunteer first aid or rescue squad, on a form and in a manner prescribed by the Director, shall be forwarded to the mayor or chief executive officer to be countersigned and issued by the mayor or chief executive

officer to the chief or first assistant chief of the volunteer fire company. Identification cards issued pursuant to this section shall be considered permits to display and operate red emergency warning lights, sirens, or both, as provided for in this act, and no lights or sirens shall be mounted prior to the issuance of the identification cards. Each chief or first assistant chief of a volunteer fire company shall carry the identification card while red emergency warning lights, or sirens, or both, are displayed on his vehicle.

**39:3-54.19. OPERATION OF MOTOR VEHICLES WITH RED EMERGENCY WARNING LIGHTS OR SIRENS; YIELDING RIGHT OF WAY**

This act shall not grant to any chief or first assistant chief of a volunteer company any privileges or exemptions denied to the drivers of other vehicles, and persons displaying red emergency warning lights, sirens, or both, shall drive with due regard

for the safety of all persons and shall obey the traffic laws of this State, provided, however, that the drivers of non-emergency vehicles upon any highway shall yield the right of way to the vehicle of any chief or first assistant chief of a volunteer fire company displaying red emergency warning lights, sirens, or both, in the same manner as is provided for authorized emergency vehicles pursuant to R.S. 39:4-92.

**39:3-54.20. UNLAWFUL USE OF RED EMERGENCY WARNING LIGHTS OR SIRENS; PENALTY**

Any person authorized to display red emergency warning lights, sirens, or both, pursuant to this act, who willfully displays or uses the lights or sirens in violation of the provisions of this act shall be liable to a penalty of not more than \$50.00 and his privilege to display the lights or sirens may be suspended or revoked by the Director of Motor Vehicles.



## ACCOUNTABILITY

### NJ PERSONNEL ACCOUNTABILITY SYSTEM (NJPAS)

In 2001, the NJ Fire Safety Commission directed the Division of Fire Safety in conjunction with the Firefighter Safety and Health Advisory Council to develop a statewide standard for fire department personnel accountability systems. It was felt that in order to provide uniform accounting of firefighters at emergency incidents throughout the state, especially where two or more departments worked together, one system utilizing the same operational components was necessary, Figure C-21.

Such a system had to be easy to use yet effective; as inexpensive as possible; and be as compatible with existing systems in use by fire departments as possible.

After weighing many options, the parties involved with the system's development agreed on a two-tag system that would allow incident commanders to know where firefighters were operating at any given time.

The proposal was presented to the Fire Safety Commission who, with their endorsement, presented it to Department of Community Affairs Commission Levin for adoption into regulation. The Commissioner adopted the regulations on

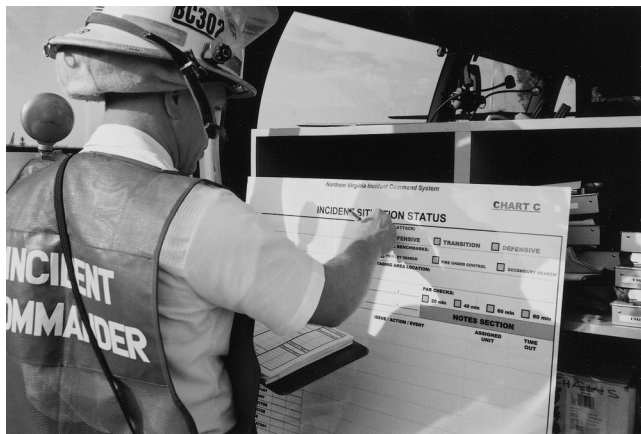
May 3, 2002 and the regulations became operative on January 3, 2003.

Personnel accountability is one of the most critical elements on an incident scene with regard to firefighter safety. Essentially, personnel ac-



**Figure C-21** A personnel accountability system is important to check the status of crews working on the scene of an incident.

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**Figure C-22** The PASS ensures the incident command staff knows the exact number and identity of personnel working at an incident.

countability is an effort to improve the safety of emergency responders by keeping track of their locations and assignments when operating at the scene of an incident.

A properly implemented PAS will help to ensure that the incident command staff knows the exact number and identity of personnel working at an incident, their approximate locations, and whether they are in distress, Figure C-22. In some form or another, regardless of size or nature, personnel accountability is a part of every incident to which fire and rescue personnel may respond. Failure to maintain personnel accountability can, and does, have tragic results. In the event that an emergency responder is injured or otherwise incapacitated on the scene of an emergency, a properly functioning PAS should assist rescuers to locate the personnel in trouble and get them to safety quickly.

It is important to note that NFPA 1561, adopted as an integral part of the regulations of New Jersey's Incident Management System requires that the accountability system "shall include a means to specifically identify and keep track of members entering and leaving hazardous areas."

### THE NJ PERSONNEL ACCOUNTABILITY SYSTEM

The New Jersey Personnel Accountability System (NJPAS) is basically a system that tracks three key elements on the incident scene: location, function and time. The regulations set forth the minimum requirements of the system including the hardware required to operate the system.

Very basically, each firefighter is to be issued two accountability tags. These tags may be simply laminated ID cards produced in-house, or some other type of tag constructed of plastic, metal or



**Figure C-23** Accountability tags are placed at a central collection point.

other durable material. Each tag is to have at minimum the firefighter's name and fire department affiliation. Tags are to be equipped with a fastening latch that can be affixed to the firefighter's turnout gear and can be clipped and un-clipped with a gloved hand.

Once on the incident scene, the firefighter should place one tag at a central collection point as determined by SOP or the incident commander (IC). Such a point might be the incident command post or the apparatus that the firefighter responded with. Career firefighters might place this tag on their apparatus at the beginning of each shift if that is the department's policy. A central collection point is necessary so that the IC and command staff have a reliable way to know who is operating on the incident scene as a whole, Figure C-23.

The second tag is to be given to the Personnel Accountability Officer (PAO) upon entering any hazardous area. Usually, this will be when the firefighter enters a structure or space where they will be performing firefighting or rescue operations in an Immediately Dangerous to Life and Health (IDLH) atmosphere. However, this requirement also applies where firefighters may be involved in wildland operations or confined space operations where there is a risk of becoming lost or disoriented either in wide expanses or maze-like areas. Upon leaving the hazardous area, the tag is to be retrieved by the firefighter.

The secondary tag should also be used when a firefighter checks into a rehabilitation station or a decontamination station or other specialized operational area at an incident scene. In this way, there is always someone other than the firefight-

ers themselves that knows where they are and what they are doing.

It is usually advisable to limit the number of points of entry into a hazardous area. In this way, it is easier to monitor entry and egress of firefighters and can reduce the potential for freelancing. However, where there are different points of entry into a hazardous area, firefighters entering will need to be accounted for. Many times more than one entry point is observable by one PAO such as at a corner of a structure. Other times it may be advantageous to designate more than one PAO if it is necessary to operate multiple points of entry. Some volunteer departments have found if feasible to utilize Fire Police who are not assigned to their normal duties to act as PAOs. In some career departments, an Incident Management Specialist position has been instituted. These individuals may be utilized as PAOs. Departments may need to develop innovative solutions in order to comply with the regulations and provide appropriate accountability for personnel.

Fire departments may, at the very beginning of operations at an incident, find it difficult to provide staffing for the accountability function. While the lack of staffing does not relieve the department from maintaining proper accountability of its members, some innovation may be necessary. One method may involve the placing of a large traffic cone with a metal ring attached near the entry point. In this way, members entering a hazardous area can "tag in" on the cone. It must be remembered that until a PAO is assigned, the incident commander retains the responsibility for the function in accordance with the requirements of the NJ Incident Management System. It is recognized that the incident management system at any incident grows with the incident and as additional staffing arrives.

Another way of providing accountability until a PAO is assigned is for the "two-out" personnel to maintain accountability. These are the two individuals that are required to be outside the hazardous area in a ready state in case it becomes necessary to rescue the initial team of firefighters in the hazardous area.

These previously referred to "interim actions" must only be utilized prior to the assignment of a PAO and should not be relied upon as a means of providing accountability throughout an incident. A PAO should be assigned as soon as it is possible. If departmental staffing is so short that it is often difficult to staff the accountability function, then additional staffing in the form of mutual aid may be an option.

It must be noted that the scope of the PAS does not simply involve the transfer of tags between per-

sonnel on the incident scene. The tags are only the tools for the PAO to use to monitor personnel with regard to location, function and time.

Taken individually beginning with location, the PAO by monitoring entry into a hazardous area knows the approximate location of firefighters. By using some type of accountability board divided by location i.e. basement; division 1; roof etc., tags can be grouped into the area where the firefighting team is assigned.

In the same way, function can be monitored in conjunction with location i.e. division 1 search; roof ventilation etc. depending upon assignment.

Time can be monitored by the PAO by utilizing a dry erase marker on a suitable accountability board for example. By marking the time of entry of each crew and knowing the average duration of the department's SCBA, the PAO can gauge as to when to expect the crew to exit or if they might be in trouble if they are overdue.

The key to all of this working effectively is communication between the crews and the PAO regarding where the crew is assigned and what their function is; and between the crews and the IC or designated officer with regard to regular situation/status reports via portable radio, Figure C-24. Crews should inform those outside what they are experiencing and accomplishing and those on the outside should be asking for information on a regular basis. All players have an equal responsibility to ensure that every firefighter is accounted for at all times.

Another important part of the PAS is the Personnel Accountability Report (PAR) and roll call. If there is any question regarding the whereabouts or safety of firefighters, or if there is a change in firefighting mode, or if an evacuation is ordered, the IC will call for a PAR. A PAR is actually the result of a roll call conducted by the



**Figure C-24** Communication between crews and the incident command staff is essential.

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PAO and company officers to ensure all firefighters are accounted for and in a safe location. The primary reasons for the IC to call for a PAR are the following:

- If there is a report of a firefighter missing.
- When an emergency evacuation is ordered.
- When the incident is declared under control.
- When changing attack modes (i.e. offensive to defensive).
- Anytime the IC feels it necessary to conduct a PAR.

Once the roll call is completed the PAR is then conveyed to the IC and if there are any firefighters unaccounted for, search and/or rescue operations are then undertaken. Usually if the PAO is holding firefighter's tags when a PAR is ordered, the PAO must try to ascertain where the firefighters that he/she is holding tags for are.

It cannot be more strongly stressed that all those operating on the incident scene play an important role in the PAS. It is for this reason that all members be trained in the use of the system. Additionally, the system needs to be instituted on every incident except those that are so minor all firefighters are in plain sight at all times.

### INTEGRATION WITH NJ INCIDENT MANAGEMENT SYSTEM

Since the inception of New Jersey's Incident Management regulations, fire departments have been required to operate within the parameters of a uniform incident management system (IMS). Part of the requirements of the IMS have always been that a fire department must utilize a PAS. The NJPAS regulations have expanded upon that requirement by providing a specific uniform method of complying with the original regulations. In this way the new regulations integrate seamlessly with the IMS and should pose little if any additional obligations on a fire department than what was originally required.

### ACCOUNTABILITY OPTIONS

As stated earlier in this booklet, the regulations for PAS are the minimum requirements that must be adhered to by fire departments. There are many enhancements that a department may want to implement to make the PAS more effective or easier to use. Tools such as dry erase accountability boards provide an easy way to organize firefighters' tags by location and function in the hazardous area. They can provide the PAO a quick reference to rapidly assess the location all the firefighters he/she is responsible for.

Additionally, some departments find that medical information on a personnel accountability tag (PAT) relating to the firefighter is useful in the event a firefighter is injured and transported to a hospital. Normally the most suitable type of PAT for this would be the laminated type where the inner part of the tag is folded in half with the confidential medical information inside. The tag is then laminated and if it is necessary to access the information, the tag is cut open.

If medical information is to be collected and included on the PAT, it must be remembered that all information is confidential and should not be shared beyond those responsible for the collection of the information without the permission of the information's owner. Information collection should also never be mandatory. Firefighter may not want to share all or any of their personal information and they should be informed that it is their right to provide only what they wish to. Any information provided should not be used for any other purpose.

Another consideration is whether the information collected will be utilized by EMS or a hospital. Some health care providers may not want to rely on what could be outdated or incorrect information. It would probably be best for the fire department to meet with their normal EMS and healthcare providers to find out whether the information provided will be used in an emergency, and if so, what information in particular would be useful to collect.

Some departments may wish to issue additional PATs above the two that are required by the regulations. Departments are free to do this if for instance it is desired for a firefighter to have a PAT on his/her person at all times in the unfortunate circumstance where identification of a severely injured or deceased firefighter must be made. Other reasons for extra PATs may be secondary access to smaller areas inside a larger hazardous area such as high rise buildings or large complexes; or where firefighters may travel on vehicles to remote locations before being assigned to tasks, such as a large wildland fire scenario.

One key element of the new PAS regulations is the ability for newer technology that provides at least the same level of firefighter safety to be utilized. There are some advanced systems that are basically like simple tag systems with features that integrate computerization. An example is a system that utilizes bar coding, where instead of a tag with readable printing, the bar code contains the firefighter's information. This code is scanned into a computer and a task and location are input to show where the firefighter is and what his/her

assignment is. With a standard tag system, an accountability board and dry erase marker perform the same function manually.

There are newer systems on the horizon that utilize Global Positioning System (GPS) technology where firefighters have "sending units" attached to their gear or integrated into their SCBA that send signals to satellites and then to a central computer on the incident scene. The location and movements of each firefighter are tracked accurately within a few feet of their position and displayed on the computer screen. Some of these systems provide for telemetry between the computer location and the individual firefighters and are capable of monitoring breathing rate, air supply and interior temperature. Additionally, they can provide for the activation of integrated PASS devices and the transmission of distress signals to the outside.

## FURTHER INFORMATION

Appendix III contains Regulations for the NJ Personnel Accountability System. Appendix IV has Regulations for the NJ Incident Management System. Appendix V is a Model SOP for the NJ Personnel Accountability System.

## REGULATIONS FOR THE NJ PERSONNEL ACCOUNTABILITY SYSTEM

### Personnel Accountability

#### 5:75-1.5 Definitions

"Hazardous Area" means any location(s) that may pose a safety and/or health risk to firefighters due to, but not limited to, the presence of products of combustion, hazardous or otherwise oxygen deficient or oxygen enriched atmosphere or the potential for any IDLH atmosphere, hazardous equipment or operations or the potential for any of these situations to exist. Additionally, any area or location that predisposes a firefighter to become lost, disoriented or trapped, including any confined space and wild land areas shall be considered a hazardous area for the purpose of this section.

"Personnel Accountability Officer" means the person designated by the Incident Commander to monitor entry into and exit out of hazardous areas and/or structures for the purpose of ensuring accountability of all personnel in the hazardous area or structure.

"Personnel Accountability Report/Roll Call" means the results of an accounting of all personnel on the emergency incident scene to the Incident Commander.

"IDLH" means immediately dangerous to life and health.

#### 5:75-2.4 Personnel Accountability

As an integral part of the incident management system used by the fire service, personnel accountability shall be maintained through the use of a personnel accountability system meeting the requirements of this section as a means to track and locate all fire department personnel operating at all emergency incidents.

(a) Every member of a fire department shall be issued a minimum of two (2) Personnel Accountability Tags.

1. Such tags shall be constructed of but not limited to metal, plastic, plastic laminated paper or plastic laminated cardboard or similar durable material.
2. Each tag shall be equipped with a clip or latch hook that will allow attachment of the tag to the firefighter's protective clothing. The clip or latch hook shall be designed to be attached and removed by a firefighter with a gloved hand.
3. The tag shall be engraved, imprinted or otherwise marked or electronically coded with the firefighter's name and fire department affiliation at minimum.

(b) The incident commander shall designate at each incident a Personnel Accountability Officer. The personnel accountability officer shall be responsible for ensuring that all personnel are accounted for. The personnel accountability officer may serve other functions at an incident scene permitting he/she is able to safely perform in the accountability function. At minor incidents, the incident commander may retain this function as he/she sees fit.

(c) Each firefighter, upon arrival at an incident scene, shall surrender the primary personnel accountability tag to a central collection point as designated by the Incident Commander or departmental policy. Such point may be a command post; or the apparatus to which the firefighter is assigned. Upon leaving the incident scene, the member shall immediately retrieve his/her personnel accountability tag from the designated collection point and re-attach it to the designated area of his/her protective gear as determined by the fire department. Firefighters assigned to a specific piece of apparatus for the duration of a tour of duty shall leave their primary personnel accountability tag on that apparatus for the duration of their tour.

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- (d) Each firefighter, upon entry in an IDLH atmosphere, hazardous area, structure, wild land area or other remote area shall surrender the secondary personnel accountability tag to the Personnel Accountability Officer who shall be in close proximity to the entry point into the hazardous area. Upon leaving the hazardous area or structure, the member shall immediately retrieve his/her personnel accountability tag from the personnel accountability officer and reattach it to the designated area of his/her protective clothing.
- (e) If the need arises to evacuate a hazardous area or structure and an evacuation is ordered, the personnel accountability officer shall order an immediate roll call of all members operating at the incident to be conducted as soon as they exit the hazardous area. The personnel accountability officer shall assure that every member who has surrendered his/her accountability tag retrieves it and re-attaches it to their protective gear. If after a reasonable time crews have not retrieved their personnel accountability tags or conditions indicate that the area is immediately unsafe for crews and/or the personnel accountability officer to operate in safely, the personnel accountability officer shall immediately report to the Incident Commander and inform him/her that members are unaccounted for and that the need for search and rescue might exist. If the personnel accountability officer is not holding any personnel accountability tags after an evacuation is ordered, he/she shall report to the Incident Commander that all members are accounted for.
- (f) The Incident Commander shall call for a Personnel Accountability Report:
  1. If there is a report of a firefighter missing.
  2. When an emergency evacuation is ordered.
  3. When the incident is declared under control.
  4. When changing attack modes (i.e. offensive to defensive).
  5. Anytime the Incident Commander feels it necessary to conduct a PAR.
- (g) When it is announced that a PAR is to be conducted all companies will:
  1. Conduct a role call of the members in that company to ensure all members are accounted for.
  2. Cease all but emergency radio communications.
  3. Report all members accounted for or report members missing.
- (h) Nothing in this section shall restrict the use of more sophisticated accountability systems utilizing bar coding, geographic positioning systems or similar methods providing the intent of this section is met.



## RIGHT-TO-KNOW

### NEW JERSEY WORKER AND COMMUNITY RIGHT-TO-KNOW ACT

This fire service reference is designed to assist fire departments in complying with the regulations of the Worker and Community Right-to-Know Act and for personnel to understand their rights with regard to working with or around hazardous substances.

This information was developed with the invaluable assistance of the New Jersey Department of Health and Senior Services, Right to Know Program.

#### PURPOSE

The Worker and Community Right to Know (RTK) Act was signed into law on August 29, 1983 with the majority of the act taking effect on August 29, 1984.

The purpose of this law is to establish a program for the disclosure of information about hazardous substances in the workplace and in the community as well as provide public access to this information, Figure C-25.



**Figure C-25** Firefighters should know about the types and locations of hazardous substances in their communities.

Additionally, the legislature took note of the fact that local health, fire, police, emergency medical services, safety and other governmental officials required detailed information about the identity, characteristics, and quantities of hazardous substances used and stored in their communities in order to adequately plan for and respond to emergencies involving those materials.

There are two ways that a fire department will become involved with the Worker and Community RTK ACT, They are:

- As an employer (See Section 2)
- As a planner and responder to local emergencies (See Section 3)

The fire department's responsibility in both areas are discussed below.

### WHEN DID THIS LAW TAKE EFFECT?

The Worker and Community RTK Act became effective in stages between 1984 and 1986. The Department of Health and Senior Services (DHSS) regulations were adopted on October 1, 1984 and have been amended several times since. In 1989, the education and training program regulations were amended to include volunteer fire departments, rescue squads and emergency medical services units. The date which all volunteers who work for these groups were to receive training was October 1, 1990. Subsequent to this date, volunteers were required to receive training within six months of joining the department or squad. Municipalities were made responsible for providing the training to these volunteers.

In 1993, the regulations were amended to explain the relationship of the training requirements of the Public Employees Occupational Safety and Health Standard for Hazardous Waste Operations and Emergency Responses to the training requirements of the Right to Know Act.

### SECTION 1

**The Law:** Worker and Community Right to Know Act L. 1983, c. 315, N.J.S.A. 34:5A-1, *et seq.*

**Effective Date:** August 29, 1984

**Enforcing Agencies:** New Jersey Department of Health and Senior Services  
Right to Know Program  
P.O. Box 368  
Trenton, New Jersey 08625-0368  
(609) 984-2022  
Right to Know regulations:  
N.J.A.C. 8:59

New Jersey Department of Environmental Protection  
Bureau of Chemical Release  
Information and Prevention  
P.O. Box 405  
Trenton, New Jersey 08625-0405  
(609) 292-6714  
Right to Know regulations:  
N.J.A.C. 7:1G

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New Jersey Department of Labor  
Division of Workplace Standards  
P.O. Box 386  
Trenton, New Jersey 08625-0386  
(609) 292-7036

## SECTION 2

### The Fire Department as an Employer

Depending on how it is organized, a fire department may be considered part of the municipality, part of a fire district or a private employer. If it is part of the municipality or a fire district, it is the employer's responsibility to ensure compliance with the RTK law by:

- Completing and submitting a RTK Survey.
- Maintaining Hazardous Substance Fact Sheets (HSFS) and Material Safety Data Sheets (MSDS) for all hazardous substances at the workplace in the RTK central file.
- Labeling all containers in the workplace.
- Providing RTK training for all employees.
- Posting the RTK poster.

If the fire department is an independent private employer, it is the municipality's responsibility to ensure that all employees receive RTK training. The requirements of a RTK survey, RTK central file, RTK labeling and RTK poster do not have to be met at the facility of a private fire department.

#### I. Completing and Submitting the Right to Know Survey

If the fire department is considered part of the municipality or fire district, then the municipality or fire district is responsible for completing the RTK survey. If the fire department is considered a private employer, it is not responsible for completing the RTK survey.

#### How Do I Determine Who Is Responsible?

If you are not sure if the fire department, the municipality or the fire district is the employer, check with the municipal clerk or the fire district administrator, the municipal or fire district attorney, or the local ordinance that created the fire department.

#### Right to Know Survey

All employers in the public sector are required to complete a RTK Survey developed by the DHSS every year. A complete inventory of products containing hazardous chemicals present at the fire house must be reported every five years. In the

intervening years, only new products have to be reported.

#### Do I Have to Ask for a Right to Know Survey?

No. The New Jersey DHSS will automatically send all public employers a RTK Survey. A volunteer private company that owns its own building will not receive a survey and does not have to fill one out. However, if you do not receive a survey and need one, you may request a survey from the DHSS at the address listed on page 2.

#### What Should a Fire Department Do if it Receives a Right to Know Survey?

A fire department that is covered under the law will receive a RTK survey with its name and address preprinted on the survey. The list of hazardous substances required to be reported on the survey should already be present in the RTK central file. The municipality or fire district must report each hazardous substance listed on the RTK Hazardous Substance List (RTKHSL) which is present at its facilities. The information to be included on the survey includes the product name and a list of hazardous substance ingredients by:

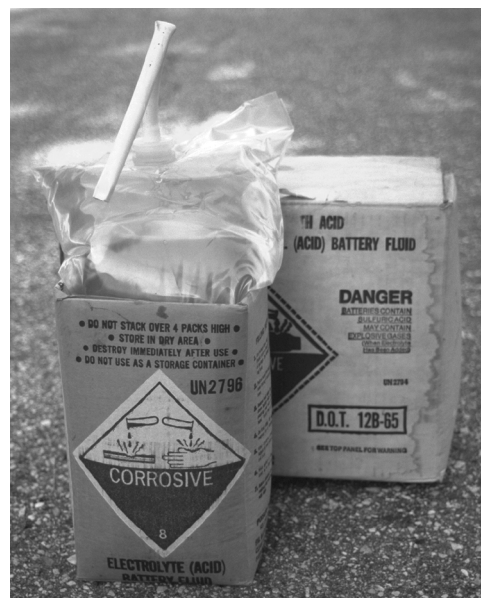
- RTK Substance Number (see RTKHSL)
- Hazardous Chemical Name
- Chemical Abstracts Service (CAS) Number (see RTKHSL)
- DOT Identification Number (see RTKHSL)
- type of container (using a code), Figure C-26
- mixture percentage (using a code)
- inventory quantity (using a code)
- whether it is a solid, liquid or gas
- the number of employees exposed or potentially exposed to the chemical
- special health hazard codes, if any
- location (required only for large quantities at a single location)

#### How Do I Figure out What Has to Be Reported?

Consult the RTK instruction booklet that came with the RTK survey and the RTKHSL. This booklet and the list will provide the information needed for completing the Survey.

#### Who Do I Send the Survey To?

Send the original survey to NJDHSS, and copies to the local police department, health department, RTK county lead agency and the Local Emergency Planning Committee. Keep a copy in your RTK central file.



**Figure C-26** Hazardous substances are stored or transported in a wide variety of containers.

## II. Maintaining Hazardous Substance Fact Sheets and Material Safety Data Sheets for All Hazardous Substances at the Workplace in the Right to Know Central File.

### What Is a Hazardous Substance Fact Sheet (HSFS)?

Once the fire department has submitted a completed survey for each of its facilities, the DHSS will send a HSFS for each hazardous substance reported on the RTK Survey. A sample fact sheet is

found in Appendix D. The HSFS contains the following information:

- Chemical name, Chemical Abstracts Services (CAS) Number, DOT number, and other names (synonyms) that the hazardous substance is known by.
- Definitions and common questions and answers.
- How to identify the number.
- Solubility in water, vapor pressure and flash point.

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- Toxicity, carcinogenicity, mutagenicity, teratogenicity, flammability, explosiveness, corrosivity and reactivity (including with water).
- A description in non-technical language of the acute and chronic health effects from exposure to the chemical, including medical conditions that may be aggravated by exposure.
- Potential routes and symptoms of exposure.
- Proper precautions, work practices, necessary personal protective equipment, and other necessary measures for safe handling and storage.
- Information on how to control and extinguish a fire that involves the hazardous substance.
- Appropriate emergency and first aid procedures for spills, fires, explosions and accidental air emissions.

### What Should We Do with the Hazardous Substance Fact Sheets?

If a fire department has reported any hazardous substances present at its facilities, it must maintain the fact sheets in a central file, and make them available to all employees. This will allow firefighters and other employees access to information that is very specific to the hazardous substances that are present at the worksite. *Additionally*, the fire department may request an entire set of 1,055 HSFS for free from the DHSS for emergency response purposes. Page 6 of the fact sheet is specially prepared to provide important information to firefighters. The fact sheets are also available on computer (CD-ROMs and on-line services). Contact the DHSS for further information.

### What Is the RTK Central File?

If the fire department has reported any hazardous substances present at its facilities, it is required to establish and maintain a central file at each facility containing a completed RTK Survey, appropriate HSFS and MSDS, and the RTK Hazardous Substance List.

### Right to Know Poster

Every fire department is required to post on a bulletin board readily accessible to its employees, a poster giving notice of the availability of the RTK survey, HSFS, MSDS, and the RTK Hazardous Substance List for those substances found at the fire station. The poster can be obtained from the DHSS.

### III. Labeling All Containers in the Workplace

A pamphlet explaining RTK labeling requirements is available from the DHSS. In general, all containers in the workplace must be labeled. There are exemptions for certain consumer products and products labeled according to certain federal la-



Figure C-27 Pesticide label.

beling laws (such as for pesticides, Figure C-27). Labeling information can be found in Appendix B. Contact the DHSS for further information if needed.

## IV. Providing Right to Know Training for Firefighters

### What Type of Training Is Required for Firefighters?

All municipal, county, and state employers, including fire districts, must develop an education and training program to inform all employees who are exposed or potentially exposed to hazardous substances of the hazards of those substances and of the provisions of the Worker and Community RTK Act. All firefighters, both paid and volunteer, are considered employees and are considered potentially exposed to hazardous substances in their work. Paid firefighters must receive RTK training within one month of hire. Volunteer firefighters must receive RTK training within six months of acceptance and both paid and volunteer firefighters must receive refresher training every two years. Fire departments may want to check with their municipality or fire district to see if an existing program already exists. Information on training and education requirements can be found in Appendix A.

Municipalities are required to certify on their Right to Know survey, every year, that new paid and volunteer firefighters have received initial Right to Know training that year, and to certify, every other year, that existing paid and volunteer firefighters have received refresher Right to Know training within the prior two years. (N.J.A.C. 8:59-6.1(d))

A similar training requirement for paid and volunteer firefighters exists under the Hazardous

Waste Operations and Emergency Response Standard (pursuant to the New Jersey Public Employees Occupational Safety and Health Act). 29 CFR 1910.120(q)

In order to prevent duplication of training, the Right to Know regulations allow much of the 1910.120(q) training to substitute for Right to Know training. The regulations say:

- Firefighters will be in compliance with Right to Know training requirements by taking the New Jersey Haz-mat Emergency Response Course—Awareness, and the New Jersey Haz-mat Emergency Response Course—Operations (using the manual dated May 10, 1990 or later), both developed by a committee under the auspices of the New Jersey State Police, Office of Emergency Management.
- In addition, firefighters should receive training on any hazardous materials in the firehouse which do not fit within the solid article or consumer product exemptions, if not already covered in other training.
- Training in the use of personal protective equipment must be given if not covered in other training, Figure C-28.
- Instructors must provide documentation to the fire company that they are “technically qualified persons” and a signed attendance roster must be maintained at the firehouse.
- (Biennial) Right to Know training can be combined with the annual refresher training required by 29 CFR 1910.120(q), however, “demonstrated competency” will not be al-

lowed as a substitute for Right to Know (biennial) training.

- A Right to Know brochure must be distributed to all firefighters during the (biennial) training course.
- Awareness and Operational courses developed by other organizations may be used in place of the State Police program for Right to Know compliance upon submission to and approval by the Department of Health and Senior Services, Right to Know Program.

### Maintenance of Right to Know Records

Training records are required to be maintained by the employer. Fire departments should check with their municipality or fire district to determine where training records will be maintained. Information about the training records that must be maintained can be found in Appendix A.

## SECTION 3

### The Fire Department as a Planner and Responder to Emergencies

#### *Right to Know Surveys*

All fire departments will receive copies of RTK Surveys completed by public employers and Community RTK Surveys completed by private employers for facilities located within their jurisdiction every year. The surveys tell WHAT hazardous chemicals are present at those facilities, their quantities and locations, and their DOT Guidebook number from the Emergency Response Guidebook, Figure C-29.

#### *What Should a Department Do With the Right to Know Surveys That it Receives?*

Fire departments should use both the RTK surveys and Community RTK surveys to help develop an emergency operations plan for facilities within its jurisdictions that report having hazardous substances. A sample Emergency Operations Plan (EOP) is available from the NJ State Police, Office of Emergency Management. HSFS are available from the DHSS for the hazardous substances reported on the surveys. You may request a complete set of HSFS from DHSS.

#### *How Do You Use a Hazardous Substance Fact Sheet or Material Safety Data Sheet?*

The fire department may maintain a file of the complete set of 1,055 HSFSs or MSDSs which it receives from certain reporting facilities, or both. This will allow firefighters to look up specific information on hazardous substances for any facility that they may be required to respond to. The HSFS and MSDS information can also be



**Figure C-28** An example of hazardous material personal protective equipment.

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**Figure C-29** A firefighter consulting the DOT *Emergency Response Guidebook*.

used in training and can be carried on apparatus or otherwise made available to officers during an incident.

If a firefighter is subject to hazardous chemical exposure during an incident, the HSFS and MSDS can be used in diagnoses and treatment at the hospital and in subsequent medical monitoring.

Fire departments should drill their firefighters and officers in the use of RTK surveys. Community RTK surveys and the accompanying HSFS and

MSDS so that all are familiar with how to locate chemical information as well as the pertinent response information required during an emergency. Drills could both be in-house and practical evolutions using hazardous substance scenarios that would require the use of surveys as well as HSFS and MSDS. Walkthroughs of specific facilities to confirm the information on the surveys and check container labels would also be beneficial.

#### ***What Type of Response Training, If Any, Is Required?***

The emergency response training that is required by the Worker and Community RTK Act is covered in Section 2. Similar emergency response training is required by the Public Employees Occupational Safety and Health Act under 29 CFR 1910.120. A pamphlet describing the requirements of 29 CFR 1910.120 is available from the DHSS, PEOSH Program, at the address listed on page 1. The relationship between required RTK training and 29 CFR 1910.120 training is covered in section 2.

It is a good idea to incorporate RTK Surveys, Community RTK surveys, HSFS and MSDS into regular firefighter training so that firefighters can become familiar with them. Additionally, as emergency operations plans are developed utilizing the information from the RTK Surveys, Community RTK surveys, HSFS and MSDS, time should be allotted during company training to cover these areas. Both surveys and HSFS are accessible by dialing into the NJDEP computer at (609) 633-6099.

Contacts for obtaining local information are contained in Appendix VI.

#### **FURTHER INFORMATION**

Appendix VI contains information on Right to Know Education and Training Programs. Appendix VII has Right to Know Labeling Requirements and Appendix VIII lists Right to Know Enforcement Agencies.



## HAZARD COMMUNICATION STANDARD

### PEOSH ADOPTS THE HAZARD COMMUNICATION STANDARD (N.J.A.C. 12:100-7)

July, 2004

The purpose of this bulletin is to inform public employers and employees that the federal Hazard Communication Standard, 29 CFR 1910.1200, has been adopted with amendments under the New Jersey Public Employees Occupational Safety and Health Act, at **N.J.A.C. 12:100-7**. The Standard overlaps with the New Jersey Worker and Community Right to Know (RTK) Act, N.J.A.C. 8:59, administered by the Department of Health and Senior Services Right to Know Program in the area of education and training of public employees. In order to prevent public employers from being subjected to two sets of rules regarding education and training, certain provisions of RTK education and training have been added to the Hazard Communication Standard and all education and training requirements are being removed from the RTK rules. This bulletin provides an overview of the Public Employees Occupational Safety and Health Program (PEOSH) Hazard Communication Standard (HCS) and explains the public employer's responsibilities under the Standard.

#### BACKGROUND

On January 11, 2001, the US Department of Labor, Occupational Safety and Health Administration (OSHA) approved New Jersey as a State-Plan State for public employees only. In accordance with the federal OSHA-approved PEOSH State Plan, New Jersey must operate an occupational safety and health program that is at least as effective as the federal program. Therefore, the New Jersey Department of Labor (DOL), PEOSH Program, has adopted the Hazard Communication Standard (HCS) with amendments to bring New Jersey's regulatory requirements and standards in line with OSHA requirements.

#### PEOSH HCS AND THE RIGHT TO KNOW ACT

OSHA adopted the federal Hazard Communication Standard in 1983, after the New Jersey Worker and Community Right to Know (RTK) Act had already been enacted. *The public sector was not covered under the federal OSHA Standard, but was covered by the RTK Act. As a result of New Jersey's OSHA-approved State Plan and the adoption of the Hazard Communication Standard by the PEOSH Program, public employers are now*

*required to comply with both the PEOSH HCS and the RTK Act.*

All references to RTK education and training are being removed from the RTK rules while certain provisions have been added to the federal Standard to create the PEOSH HCS. The New Jersey Department of Labor and Department of Health and Senior Services agreed to this change in order to eliminate confusion among public employers regarding the need to educate and train employees about hazards in the workplace. **Public employee training will now be solely enforced under the Hazard Communication Standard adopted by the PEOSH Program. The PEOSH HCS amendments are listed in the boxed area on the following page.** It is strongly recommended that you read the PEOSH HCS and Appendix E of the PEOSH HCS in its entirety to become familiar with all of the Standard's requirements.

#### PEOSH Hazard Communication Standard Summary of Amendments

- N.J.A.C. 12:100-7.3 new definitions added: Hazardous Substance Fact Sheet (HSFS); RTK Hazardous Substance List (RTK HSL); RTK Survey; Technically Qualified Person; Workplace Hazardous Substance List; Workplace Survey
- N.J.A.C. 12:100-7.8(a) refresher training must be provided every two years, during regular working hours, and at no cost to employees
- N.J.A.C. 12:100-7.8(a) chemical specific information must be made available to employees through HSFSs
- N.J.A.C. 12:100-7.8(b)(3) employees must be informed of the location and availability of HSFSs, the RTK Survey, and the RTK HSL
- N.J.A.C. 12:100-7.8(c)(5) training must include an explanation of applicable provisions of the RTK Act (RTK Survey, RTK HSL, labeling, HSFS, central file, poster)
- N.J.A.C. 12:100-7.8(c)(6) a copy of the RTK brochure must be provided to employees
- N.J.A.C. 12:100-7.8(d) a "technically qualified person" must be used to conduct training
- N.J.A.C. 12:100-7.8(e) a list of the items to be included in training records
- N.J.A.C. 12:100-7.8(f) training records must be maintained
- N.J.A.C. 12:100-7.8(g) an employer is required to make available all training records
- N.J.A.C. 12:100-7.8(h) training materials must be appropriate in content and vocabulary to the educational level, literacy, and language of employees

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**WHO IS COVERED?**

The PEOSH HCS applies to all public employers and employees in New Jersey who use or store hazardous chemicals or products containing hazardous chemicals. A hazardous chemical is defined as a chemical which is a physical hazard or a health hazard (See N.J.A.C. 12:100-7.3). Refer to the PEOSH HCS for sources of information that are used to identify hazardous chemicals, N.J.A.C. 12:100-7.4, and those products to which the PEOSH HCS does not apply, N.J.A.C. 12:100-7.2(f).

**PURPOSE OF THE HAZARD COMMUNICATION STANDARD**

The purpose of the PEOSH HCS is to ensure that the hazards of all chemicals produced or imported are evaluated, and that information regarding the hazards of the chemicals is passed on to employers and employees. Under the PEOSH HCS, communication of the hazards of chemicals is achieved through a comprehensive hazard communication program which includes:

- A written hazard communication program;
- Container labeling and other forms of warning;
- Use of Material Safety Data Sheets (MSDSs) and HSFs; and
- Employee training.

The evaluation of chemical hazards is the responsibility of manufacturers and importers. **Employers who use hazardous chemicals must comply with the parts of the PEOSH HCS that require development and maintenance of a written hazard communication program and the communication of the hazard information to their workers.**

**EMPLOYERS WITH LIMITED PEOSH HCS COVERAGE**

Sealed container operations and laboratories have limited coverage under the PEOSH HCS. These limitations are explained below and are found in N.J.A.C. 12:100-7.2.

1. **Chemicals in sealed containers**—Employees who handle hazardous chemicals in sealed containers which are not opened under normal conditions of use, such as in warehouses and transportation facilities, are exempt from the full requirement of the Standard, but the employer is still required to:
  - Ensure that labels are not defaced or removed from incoming containers;
  - Obtain and maintain Material Safety Data Sheets (MSDSs) and make them readily ac-

cessible to employees in their work areas during each workshift; and

- Provide information and training for employees, except for the location and availability of the written hazard communication program, so they know how to protect themselves in the event of a chemical spill or leak from a sealed container.

2. **Laboratories**—Employers are required to perform only the following under the PEOSH HCS:

- Ensure that labels are not defaced or removed from incoming containers;
- Obtain and maintain Material Safety Data Sheets (MSDSs) and make them readily accessible to employees in their work areas during each workshift; and
- Provide information and training for laboratory employees in accordance with the PEOSH HCS, except for the location and availability of the written hazard communication program.

For laboratories covered under the Occupational Exposure to Hazardous Chemicals in Laboratories Standard, 29 CFR 1910.1450 (laboratories where chemical manipulations are carried out on a "laboratory scale," multiple chemical procedures or chemicals are used, the procedures involved are not a part of a production process, and protective laboratory practices and equipment are available and in common use), the requirements of the PEOSH HCS are superseded. In this case the more specific Standard 29 CFR 1910.1450 applies. However, these laboratories are still required to comply with the provisions of the RTK Act.

**Note:** Laboratory employers that ship hazardous chemicals are considered to be either chemical manufacturers or distributors. They must, therefore, ensure that any containers of hazardous substances leaving the laboratory are labeled as required by the PEOSH HCS, and that an MSDS is provided to distributors and other downstream employers as required by the PEOSH HCS.

**PROVISIONS OF THE PEOSH HCS**

1. Chemical hazard evaluation
2. A written hazard communication program
3. Container labeling and other forms of hazard warning
4. Preparation, distribution, and maintenance of Material Safety Data Sheets (MSDSs)

5. Development and implementation of employee information and training programs
6. Trade Secrets

Each provision of the PEOSH HCS is summarized below. For a more detailed explanation of each provision, review a copy of the standard N.J.A.C. 12:100-7, available from the PEOSH Program at the address listed on page 6. The standard may also be obtained from the website listed in the box below.

**Note:** The PEOSH Program has developed a document, "Public Employer's Guide and Model Written Program for the Hazard Communication Standard," to assist public employers in complying with the PEOSH HCS. A sample written program is included in this Guide. If you choose to use the model written program provided, it must be adapted to reflect policies and work practices at your specific workplace. To obtain a copy, visit our web site [www.nj.gov/health/eoh/peoshweb](http://www.nj.gov/health/eoh/peoshweb), or call 609-984-1863.

### Hazard Evaluation

Each hazardous chemical must be evaluated for its ability to cause adverse health effects and its potential to cause physical hazards, such as flammability, based on established criteria for defining a hazardous substance. Conducting this hazard evaluation is a responsibility of the producers, importers, and distributors of hazardous chemicals. This section may not apply to public employers unless you create or ship hazardous chemicals to others. **The majority of public employers will only need to focus on items 2–6 above under "Provisions of the PEOSH HCS."**

### Written Hazard Communication Program

All employers must develop and maintain a written hazard communication program at each workplace. The employer must describe in the program how the PEOSH HCS requirements for labeling, training, and MSDSs will be met. The written program must be made available upon request to employees, the employees' representative, the Commissioner of the New Jersey Department of Labor and the Commissioner of the New Jersey Department of Health and Senior Services or their designees. The written Program must contain, at a minimum:

1. A list of hazardous chemicals in the workplace;
2. A description of how employees will be informed of the hazards of non-routine tasks and the hazards of chemicals contained in unlabeled pipes;
3. Information about the availability of MSDSs and HSFSSs and methods to provide access to MSDSs and HSFSSs;
4. A description of container labeling and other forms of warning;
5. A description of the employee training program;
6. Procedures for training new employees initially, when new products are introduced, and for refresher training;
7. Methods for providing hazard information and protective measures to other employers on site who may be exposed.

A list of hazardous chemicals (List) must be compiled using the identity of the hazardous chemical or product that appears on the container and MSDS. The PEOSH HCS is a performance-based Standard. It allows the public employer flexibility in using existing lists of hazardous chemicals, such as the RTK Survey, to comply with the requirements to compile a list of hazardous chemicals. **The public employer has the option under the PEOSH HCS to develop a separate List to be included in the written Program or to use their RTK Survey as the List.**

The employer must be certain, however, that their RTK Survey contains all of the hazardous chemicals in the workplace if it is to be used as the required List. This would require them to have a complete inventory RTK Survey. They can also attach a supplemental page to the RTK Survey listing any hazardous substances that may not be on their RTK Survey to comply with the PEOSH HCS.

### HCS Labeling Requirement and Other Hazard Warnings

Products containing hazardous chemicals must be labeled to inform employers and employees of the hazards associated with the product or chemical. **Chemical manufacturers, importers, and distributors** must label, tag or mark containers with the *identity of the hazardous chemicals contained in the product and must show hazard warnings to protect the employee*. The identity of the hazardous product must correspond to the name listed on the MSDS for that product. The warning may be in the form of words, pictures, or symbols, and must be legible and prominently displayed. Any target organs affected by the product or chemical must be identified. The name and address of the manufacturer or importer must also be included on the label.

**Under the PEOSH HCS, public employers are required to make certain that the chemical products entering their facility are labeled and the labels are not defaced or removed.** Gener-

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ally, the employer receives the product or chemical already labeled by the producer based on OSHA HCS labeling requirements. In addition, public employers must check that the product is labeled according to the New Jersey RTK law. *Public employers must comply with the labeling requirements of both PEOSH HCS and the RTK Act. Refer to the PEOSH HCS for specifics on container labeling, N.J.A.C. 12:100-6.6.*

### Material Safety Data Sheets

Employers must obtain and maintain an MSDS for each product containing hazardous chemicals. The MSDS is an information bulletin that describes in detail: the physical and chemical properties, physical and health hazards, routes of exposure, precautions for safe handling and use, emergency and first aid procedures, and control measures for the hazardous chemical or product. It is prepared by the manufacturer or importer and is provided to the distributor and employers who use the product or chemical.

**Under the PEOSH HCS, public employers must obtain an MSDS for each hazardous chemical or product and make them readily accessible to employees in their work area during each workshift.** If the RTK Central File provides the required accessibility for employees in their work area, it meets the PEOSH HCS requirement.

*If MSDSs are not received with a shipment of products containing hazardous chemicals, the public employer must contact the manufacturer for the missing MSDSs. A sample letter requesting an MSDS is included in the Public Employer's Guide and Model Written Program for the Hazard Communication Standard.*

### Employee Training

Employers must develop an information and training program for those employees who are exposed to hazardous chemicals under normal conditions of use or in a foreseeable emergency. Exposure means the employee comes in contact with the hazardous chemical during their job activities by any route of exposure (e.g., inhalation, skin absorption, or ingestion).

**Under the PEOSH HCS, employees must be trained at the time of their initial assignment to work with hazardous chemicals and when a new physical or health hazard is introduced into the workplace.** This requirement differs from the RTK training requirement which allowed the employer 30 days to initially train the employee, **Refresher training shall be provided every two years for all employees who continue to be exposed to hazardous chemicals. Refresher training is an abbreviated version of the initial training.** The

training must be provided during working hours and at no cost to the employee.

The public employer shall ensure that all employees participate in a training program conducted by a **"technically qualified person."** A technically qualified person means, for training purposes:

- A person who is a registered nurse, Certified Safety Professional, or Certified Industrial Hygienist, or a person who has a bachelors degree or higher in industrial hygiene, environmental science, health education, chemistry, or a related field, *and* understands the health risks associated with exposure to hazardous substances; or
- A person who has completed at least 30 hours of hazardous materials training and understands the health risks associated with exposure to hazardous substances, *and* has at least one year of experience handling hazardous substances or working with hazardous substances; or
- For teaching the recruit firefighting training course established by the New Jersey Department of Community Affairs (DCA), a person who has fulfilled the requirements of Firefighter Instructor Level I as certified by DCA.

The definition of a "technically qualified person" can be found in the PEOSH HCS, at N.J.A.C. 12:100-7.3.

**The PEOSH HCS information and training program must be appropriate in content and vocabulary to the educational level, literacy, and language of the employees in the training session and contain, at a minimum:**

1. An explanation of the requirements of the PEOSH Hazard Communication Standard;
2. A description of operations in the work area where hazardous materials are present;
3. The location and availability of the written hazard communication program and other health and safety information (MSDS, HSFS, RTK Survey, and RTK HSL);
4. Details of the facility's hazard communication program;
5. An explanation of the applicable provisions of the RTK Act (RTK Survey, RTK Labeling, HSFS, RTK HSL and Poster);
6. Methods used to identify and recognize hazardous materials in the work area (e.g., labels, MSDS, HSFS);
7. A discussion of the physical and health hazards of the hazardous chemicals;
8. Control measures and specific procedures used to prevent exposure;

9. Standard operating procedures regarding the use, storage, and emergency clean up of hazardous chemicals; and
10. A copy of the RTK brochure.

Additionally, Hazardous Substance Fact Sheets (HSFSs) are required to be made available to employees for chemical specific information, N.J.A.C. 12:100-7.8.

### Recordkeeping

**Public employees' training records shall be maintained by the employer for the duration of the employee's employment, and shall be made available to the Commissioner of Labor or the Commissioner of Health and Senior Services or their designees for examination and copying.** The training records shall be provided upon request for examination or copying to employees and employee representatives.

Training records shall include:

- Date of the training session;
- Location of the training session;
- Type of training (initial or refresher);
- Name and qualifications of the trainer;
- Names and job titles of the persons attending the training session;
- The content or summary of the training session.

### Trade Secrets

Under the PEOSH HCS chemical manufacturers, importers, or employers are allowed to withhold the specific chemical identity of a hazardous chemical from an MSDS if certain conditions are met:

1. The trade secret claim can be supported;
2. The MSDS contains information on the properties and effects of the hazardous chemical;
3. The MSDS indicates that the specific chemical identity is being withheld as a trade secret; and
4. The specific chemical identity is made available to health professionals, employees, and designated representatives under certain specified situations.

In general, a request for the disclosure of a trade secret must be in writing and a statement to maintain the confidentiality of the disclosed information must be included in the request. **The identity of a trade secret chemical must be released in cases of medical emergencies or first aid treatment regardless of the existence of a written statement.** Review the PEOSH HCS for more specific details regarding the trade secret provision. Appendix D of the Standard provides the definition of a trade secret.

### APPENDICES

There are appendices to the PEOSH HCS to assist employers with compliance. Appendices A, B and D are mandatory. Appendix A provides definitions and an explanation of health hazards. Appendix B explains the criteria for evaluating hazards. Appendix D sets forth the definition of a "Trade Secret." Advisory information is provided in Appendix E to assist employers with compliance.

#### For Additional Information Contact:

New Jersey Department of Health and Senior Services  
Public Employees Occupational Safety and Health Program  
PO Box 360  
Trenton, NJ 08625-0360  
(609) 984-1863  
<http://www.nj.gov/health/eoh/peoshweb>

New Jersey Department of Labor and Workforce Development  
Division of Public Safety and Occupational Safety and Health  
PO Box 386  
Trenton, NJ 08625-0386  
(609) 633-2587  
<http://www.nj.gov/labor/lasse/lspeosh.html>

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## REVIEW QUESTIONS

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1. What is the difference between United States Federal OSHA and the State of New Jersey PEOSHA?
2. Describe the protective clothing that firefighters wear and its limitations.
3. Explain which departments of the New Jersey State government enforce standards and regulations pertaining to firefighters.
4. List the types of bloodborne pathogens that can threaten the health of firefighters.
5. What is the least number of accountability tags that should be issued to a New Jersey firefighter before an incident?